

KMCO, LLC

APRIL 2019 STORM WATER MANAGEMENT PLAN

The purpose of this plan is to supplement the existing Storm Water Pollution Prevention Plan. All runoff water from the site will be collected and stored prior to significant rain event if possible.

1) Locations / Site Map

The following locations are indicated on the attached Site Maps.

- a) Ramsey Road East
- b) Ramsey Road West (Inclusive of Outfall 003, Berm 5 and Berm 6)
- c) Intersection of Ramsey Road and Crosby-Dayton Road
- d) Crosby-Dayton Road County Ditch Section 1 (Intersection to Berm 1)
- e) Crosby-Dayton Road County Ditch Section 2 (Berm 1 to Berm 2)
- f) Crosby-Dayton Road County Ditch Section 3 (Berm 2 to Berm 3)
- g) Crosby-Dayton Road County Ditch Section 4 (Berm 3 to Berm 4)
- h) Flare Detention Area
- i) West Stormwater Conveyance
 - o In the event of copious rainfall, open the 36" block valve to direct flow from Clara Wilson Rd through the Western Stormwater Conveyance, bypassing the Northern and Eastern Facility Perimeter Conveyances.
- j) Plant (Please refer to Attachments - Internal Dam Map)
 - o Plant Berm A
 - o Plant Berm B
 - o Plant Berm C
 - o Plant Berm D
 - o Plant Berm E
 - o Plant Berm F
 - o Plant Natural Barrier 1 (NB 1)
 - o Plant Natural Barrier 2 (NB 2)

2) Status of Each Location

- a) Ramsey Road East (Inclusive of Dam 6) – Receiving off-site flow from Clara-Wilson road and flows south toward the intersection of Ramsey Road and Crosby-Dayton Road.
 - a. 4/6/19 – Potential compromised water identified at intersection upstream of culvert across the street from scale house.
 - b. 4/8/19 – Dam 6 installed, 2 pumps diverting all incoming flow around the Site using the North Ditch and hoses to the West Conveyance as approved by TCEQ (Anallely Salinas), HCPC (Craig Hill) and EPA (Nicholas McDonnald)
 - c. 4/9/19 Water was pumping throughout the day removing any remaining stormwater. A dam was installed to prevent inflow from crossing the front of the site.
 - d. 4/10/19 Pump is still on but we are relocating 1 of the pumps to North West Ramsey Road.
- b) Ramsey Road West (Inclusive of Outfall 003, Inclusive of Dam 5) – typically receives flow from Clara Wilson Road and is comingled with Industrial runoff at the Outfall 003 discharge location.

- a. 4/8/19 – Dam 5 installed to redirect inflow from flowing south across the front of the facility. Outfall 003 dammed off. Runoff from inside the plant is dammed off to prevent runoff to the ditch.
 - b. 4/9/19 – not flowing incoming flow was dammed and diverted along Clara Wilson Road.
 - c. 4/10/19 - soil was removed and placed in roll offs and placed onsite waiting for analytical
- c) Intersection of Ramsey Road and Crosby-Dayton Road – At the intersection of Ramsey Road and Crosby-Dayton Road water from the Ramsey Road East flow enters into a culvert that discharges under the Ramsey Road and into Crosby-Dayton Road Ditch.
- a. 4/8/19 – some trickle from East into Ditch sections
 - b. 4/9/19- no flow
 - c. 4/10/19 – no flow, no digging until UP is onsite to location fiber lines on 4/11
 - d. 4/12/19 Anticipate approval to begin excavation upon approval.
- d) Crosby-Dayton Road County Ditch Section 1 (Intersection to Berm 1) – Water flows from east to west along the North side of the Crosby-Dayton Road.
- a. As of 4/4/19 3:00 PM currently 40% full of stormwater and industrial water runoff. Water collection is occurring in this section.
 - b. As of 4/5/19 6:30 PM currently 20% full of stormwater and industrial water runoff. Water collection is occurring in this section.
 - c. As of 4/6/19 2:00 PM currently 5% of stormwater and industrial water runoff. Water collection activities are on standby. Five (5) frac tanks (empty) available for collection upon rainfall.
 - d. As of 4/7/19 7:00 PM currently 100% full of stormwater and being collected by Three (3) 130 BBL trucks placing into Five (5) frac tanks that are available at this location, once full they will move the water to tankage inside the facility
 - e. As of 4/8/19 4:00 currently 80% full of stormwater and being collected by three (3) 130 BBL trucks placing into tankage in the facility, additional 10 frac tanks are being installed to be interconnected with a 2~4" pumps attached and placed at each end of 10 interconnected frac tanks.
 - f. As of 4/9/19 4:00 currently 20% full of stormwater and being collected by three (11) 130 BBL trucks placing into tankage in the facility
 - g. 4/10/19 currently empty and removing water from fracs on road and taking inside facility
 - h. 4/11/19 Soil collection from this area is beginning and will continue until determined to be cleaned.
 - i. 4/12/19 Soil collection is continuing and will until determined to be cleaned.
- e) Crosby-Dayton Road County Ditch Section 2 (Berm 1 to Berm 2) – Water normally flows from east to west along the North side of the Crosby-Dayton Road. At this time the flow is dammed upstream at Berm 1.
- a. As of 4/4/19 3:00PM currently 10-20% full of stormwater and industrial water runoff. Water collection is occurring in this section.

- b. As of 4/5/19 currently 10-20% full of stormwater and industrial water runoff. Water collection is occurring in this section.
 - c. As of 4/6/19 2:00 PM currently 5% full of stormwater and industrial water runoff. Water collection activities are on standby. Ten (10) frac tanks (empty) available for collection upon rainfall.
 - d. As of 4/7/19 7:00PM currently 50% full of stormwater, breached from Crosby-Dayton Road County Ditch Section 1 (Intersection to Berm 1) and pump turned on to pump into available Ten (10) frac tanks.
 - e. As of 4/8/19 5:00 currently all (10) frac tanks full and the trucks are pulling out and taking the water inside to tankage
 - f. As of 4/9/19 4:00 5% remains, no collection at this time
 - g. 4/10/19 5:00 no collection at this time
 - h. 4/11/19 Soil collection from this area is beginning and will continue until determined to be cleaned.
 - i. 4/12/19 Soil collection is continuing and will until determined to be cleaned.
- f) Crosby-Dayton Road County Ditch Section 3 (Berm 2 to Berm 3) – Water normally flows from east to west along the North side of the Crosby-Dayton Road. At this time the flow is dammed upstream at Berms 1 and 2.
- a. As of 4/4/19 3:00PM currently believed to be un-impacted by event runoff. No water collection has occurred from this portion of the conveyance.
 - b. 4/5/19 - No water collection has occurred from this portion of the conveyance.
 - c. 4/6/19 - No water collection has occurred from this portion of the conveyance.
 - d. 4/7/19 All Water was collected and taken inside facility to tankage.
 - e. 4/8/19 Sampling being conducted to determine remediation grid (4 Frac Tanks)
 - f. 4/9/19 No water collection has occurred from this portion of the conveyance.
 - g. 4/10/19 No water collection has occurred from this portion of the conveyance.
 - h. 4/11/19 At this time it is uncertain if this area will require soil removal and remediation.
 - i. 4/12/19 Soil collection may be considered if any contamination is observed.
- g) Crosby-Dayton Road County Ditch Section 4 (Berm 3 to Berm 4) - Water normally flows from east to west along the North side of the Crosby-Dayton Road. At this time the flow is dammed upstream at Berms 1, 2 and 3.
- a. As of 4/4/19 3:00PM currently believed to be un-impacted by event runoff. No water collection has occurred from this portion of the conveyance.
 - b. 4/5/19 – No water collection has occurred from this portion of the conveyance.
 - c. 4/6/19 – No water collection has occurred from this portion of the conveyance.
 - d. 4/7/19 - First 15 minutes or ¼" rain water collected with regular 130BBL truck and discharged into frac tank, then all additional water was collected with clean 130BBL truck and pumped bypassed past Berm 3 to Berm 4

- e. 4/8/19- No water collection has occurred from this portion of the conveyance. First Flush + and transfer rain water to upstream of berm. Currently no water in this section.
- f. 4/9/19 no collection
- g. 4/10/19 no collection
- h. 4/11/19 At this time it is uncertain if this area will require soil removal and remediation
- h) Flare Detention Area – Open permeable area of the facility that collects both Industrial and Stormwater runoff from the impermeable areas and railroad. Runoff collected can be pumped to the wastewater treatment plant and to tankage or allowed to run into the West Stormwater Conveyance. A visual inspection of all water collected is performed prior to allowing the water to be released into the conveyance west of the facility.
 - a. As of 4/4/19 the knife gate valve is closed. No detained water is comingling with the county flow.
 - b. 4/5/2019 the knife gate valve is closed. No detained water is comingling with the county flow. Samples taken upstream, downstream and at the knife valve (samples labeled North, South, and middle).
 - c. 4/6/2019 the knife gate valve is closed. No detained water is comingling with the county flow. .
 - d. 4/7/19 Valve closed to prevent offsite flow.
 - e. 4/8/19 Valve closed to prevent offsite flow.
 - f. 4/9/19 Valve closed to prevent offsite flow.
 - g. 4/10/19 Valve closed to prevent offsite flow.
 - h. 4/11/19 Valve closed to prevent offsite flow.
- i) West Stormwater Conveyance-County flow through conveyance that flows south from Clara-Wilson Road toward a pipe inlet on the South West corner of the Flare Detention Area. Stormwater from the Flare Detention Area is isolated from the County's flow via a knife gate. Knife valve is being flagged to be opened once analytical has been reviewed and cleared.
 - a. 4/7/19 Valve opened
 - b. 4/8/19 Valve open
 - c. 4/9/19 Valve is open for county flow to bypass through this conveyance.
 - d. 4/10/19 Valve is open for county flow to bypass through this conveyance.
 - e. 4/11/19 Valve is open for county flow to bypass through this conveyance.
- j) Plant Impermeable Areas – Stormwater from the site is collected in internal ditches and transferred to the wastewater treatment plant and to tankage. In addition, on 4/6 perimeter barriers (dirt berms) will be erected around the impacted units in order for water discharge from these areas to be segregated. For this purpose, 6 dirt berms (Plant Berms A-F) will be erected as shown in the Internal Dam Map. Two existing natural barriers (NB1 and NB2) will also aid in segregating storm water runoff from these areas.
 - a. 4/8 Plant berm'd internally, collecting as described below.
 - b. Plant bermed areas will continue to be maintained until plant clean-up is complete.

3) Transfer Methods

All water collected due to the firefighting and deluge system was collected and will be properly disposed of offsite. Water from rain event on 4/7 that contacted impacted areas was properly collected and will be disposed of offsite.

Water and Stormwater that was collected from uncontaminated areas and areas along the Crosby Dayton Road will be treated through the WWTP. The uncontaminated water will be allowed to be processed once it has been determined that there are no pollutant or contamination levels above what the WWTP typically processes.

The alternative pretreatment option, collected uncontaminated water may be processed through a carbon filter system prior to flowing into the WWTP to ensure that all pollutants or contaminants are captured.

Upon completion of the soil removal from the ditches, all berms will be removed allowing future runoff to return to normal flow through county conveyances. No additional stormwater from uncontaminated areas will be collected and stored.

a) Ramsey Road East

- a. 4/4/19 3:00PM Not currently transferring from this location
- b. 4/5/19 Not currently transferring from this location
- c. 4/6/19 Not currently transferring from this location

b) Ramsey Road West (Inclusive of Outfall 003)

- a. 4/4/19 3:00PM Not currently transferring from this location
- b. 4/5/19 Not currently transferring from this location
- c. 4/6/19 Not currently transferring from this location
- d. 4/7/19 Collect and pumped into frac tank in contractor parking lot
- e. 4/8/19 Collect and pumped into frac tank in contractor parking lot
- f. 4/9/19 Collect and pumped into frac tank in contractor parking lot
- g. 4/10/19 soiled collect into roll offs

c) Intersection of Ramsey Road and Crosby-Dayton Road

- a. 4/4/19 3:00PM Not currently transferring from this location
- b. 4/5/19 Not currently transferring from this location
- c. 4/6/19 Not currently transferring from this location
- d. 4/7/19 Not currently transferring from this location
- e. 4/8/19 Not currently transferring from this location
- f. 4/9/19 Not currently transferring from this location
- g. 4/10/19 Not currently transferring from this location

d) Crosby-Dayton Road County Ditch Section 1 (Intersection to Berm 1)

- a. 4/4/19 3:00PM Primary – 3 – 130 barrel vacuum trucks (SWS) ACTIVE
- b. 4/4/19 3:00PM Secondary - 4 – 130 barrel vacuum trucks (Clean Harbours) ACTIVE
- c. 4/5/19 Primary - 6 - 130 barrel vacuum trucks (SWS) ACTIVE
- d. 4/5/19 Secondary – 4 available – 130 barrel vacuum trucks (Clean Harbours) ACTIVE

- e. 4/6/19 Secondary – 6 available – 130 barrel vacuum trucks (Clean Harbours) ACTIVE
- f. 4/7/19 3:00PM Primary – 8 – 130 barrel vacuum trucks (SWS) ACTIVE
- g. 4/7/19 3:00PM Secondary - 4 – 130 barrel vacuum trucks (Clean Harbours) ACTIVE
- h. 4/8/19 3:00PM Primary – 8 – 130 barrel vacuum trucks (SWS) ACTIVE
- i. 4/8/19 3:00PM Secondary - 4 – 130 barrel vacuum trucks (Clean Harbours) ACTIVE
- j. 4/9/19 3:00PM Primary – 8 – 130 barrel vacuum trucks (SWS) ACTIVE
- k. 4/9/19 3:00PM Secondary - 4 – 130 barrel vacuum trucks (Clean Harbours) ACTIVE
- l. /9/19 3:00PM Primary – 8 – 130 barrel vacuum trucks (SWS) ACTIVE
- m. 4/9/19 3:00PM Secondary - 4 – 130 barrel vacuum trucks (Clean Harbours) ACTIVE
- e) Crosby-Dayton Road County Ditch Section 2 (Berm 1 to Berm 2)
 - a. 4/4/19 3:00 PM Stand-alone pump collecting retained water into frac tanks.
 - b. 4/5/19 Stand-alone pump collecting retained water into frac tanks. Removing water from frac tanks relocating to designate onsite tankage.
 - c. 4/6/19 Not currently transferring from this location
 - d. 4/7/19 Removing water from frac tanks relocating to designate onsite tankage.
 - e. 4/9/19 Removing water from frac tanks relocating to designate onsite tankage.
 - f. 4/10/19 Removing water from frac tanks relocating to designate onsite tankage.
- f) Crosby-Dayton Road County Ditch Section 3 (Berm 2 to Berm 3) –
 - a. 4/4/19 3:00PM No collection occurring
 - b. 4/5/19 No collection occurring
 - c. 4/6/19 Not currently transferring from this location
 - d. 4/7/19 Not currently transferring from this location
 - e. 4/8/19 Not currently transferring from this location
 - f. 4/9/19 Not currently transferring from this location
 - g. 4/10/19 Not currently transferring from this location
 - h.
- g) Crosby-Dayton Road County Ditch Section 4 (Berm 3 to Berm 4) –
 - a. 4/4/19 3:00PM No collection occurring
 - b. 4/5/19 No collection occurring
 - c. 4/6/19 Not currently transferring from this location
 - d. 4/7/19 Collection is complete, Not currently transferring from this location
 - e. 4/8/19 No collection occurring
 - f. 4/9/19 No collection occurring
 - g. 4/10/19 No collection occurring
- h) Flare Detention Area
 - a. 4/4/19 3:00PM Stand-alone pump transferring water to the WWTP and into tankage
 - b. 4/5/19 As of 8:00 the Flare Detention Area has no standing water in it
 - c. 4/6/19 Not currently transferring from this location
 - d. 4/7/19 Not currently transferring from this location
 - e. 4/8/19 Not currently transferring from this location
 - f. 4/9/19 Not currently transferring from this location
 - g. 4/10/19 Not currently transferring from this location

- i) West Stormwater Conveyance
 - a. 4/4/19 3:00PM No collection occurring
 - b. 4/5/19 No collection occurring
 - c. 4/6/19 Not currently transferring from this location
 - o 4/7/19 opened the 36" block valve to direct flow from Clara Wilson Rd through the Western Stormwater Conveyance, bypassing the Northern and Eastern Facility Perimeter Conveyances.
 - d. 4/8/19 still Open the 36" block valve to direct flow from Clara Wilson Rd through the Western Stormwater Conveyance, bypassing the Northern and Eastern Facility Perimeter Conveyances.
 - e. 4/9/19 is this still open
 - f. 4/10/19 is this still open
- j) Plant Impermeable Area
 - a. 4/4/19 3:00PM Stand-alone pump
 - b. 4/4/19 3:00PM Primary - 3 – 130 barrel vacuum truck (SWS)
 - c. 4/4/19 Secondary – 1 available – 130 barrel truck (USES)
 - d. 4/5/19 Primary – 2 available – 130 barrel vacuum truck (SWS)
 - e. 4/5/19 Secondary – 2 available – 130 barrel truck (USES)
 - f. 4/6/19 Hot Zone – Primary - 2 available – 130 barrel truck (SWS)
 - g. 4/7/19 Hot Zone – Primary - 2 available – 130 barrel truck (SWS)
 - h. 4/7/19 Hot Zone – Back up – 3 available -70 Barrel Truck Haz Mat Special Services
 - i. 4/7/19 Secondary Primary – 8 available – 130 barrel truck (SWS)
 - j. 4/8/19 Hot Zone – Back up – 3 available -70 Barrel Truck Haz Mat Special Services
 - k. 4/9/19 Hot Zone - Back up – 3 available -70 Barrel Truck Haz Mat Special Services
 - l. 4/10/19 Hot Zone – None onsite today
- 4) Storage of Runoff Water Collected

A list of tanks approved to accept runoff water is attached.

 - a) Ramsey Road East –
 - a. 4/4/19 3:00PM No storage currently
 - b. 4/5/19 No storage currently
 - c. 4/6/19 No storage currently
 - d. 4/7/19 All rainwater runoff collected, Berms installed on northern portion and pumps installed to divert runoff and pond water runoff East to West along Clara Wilson Road
 - e. 4/8/19 No storage currently, runoff diverted
 - f. 4/9/19 No storage currently, runoff diverted
 - g. 4/10/19 All runoff collected, runoff diverted and remediation of Southern most section prior to intersection initiated.
 - b) Ramsey Road West (Inclusive of Outfall 003) –
 - a. 4/4/19 3:00PM No storage currently
 - b. 4/5/19 No storage currently

- c. 4/6/19 No storage currently
 - d. 4/7/19 Berm installed to prevent runoff from crossing in front of the facility. Collected all runoff from leaving facility and placed in frac tanks. Rainwater
 - e. 4/8/19 Collected from leaving facility and placed in frac tanks
 - f. 4/9/19 Collected from leaving facility and placed in frac tanks and Plant Tankage
 - g. 4/10/19 All water collected and remediation of contaminated areas initiated
- c) Intersection of Ramsey Road and Crosby-Dayton Road –
- a. 4/4/19 3:00PM No storage currently
 - b. 4/5/19 No storage currently
 - c. 4/6/19 No storage currently
 - d. 4/7/19 No storage currently
 - e. 4/8/19 Runoff collection Some rainwater collection to tank tankage
 - f. 4/9/19 Runoff collection to plant tankage
 - g. 4/10/19 Runoff collection to plant tankage, remediation initiated
 - h. 4/12/19 Upon the completion of soil removal, no further Stormwater runoff will be collected for storage and treatment.
- d) Crosby-Dayton Road County Ditch Section 1 (Intersection to Berm 1) –
- a. 4/4/19 3:00PM Collection into 3 isolated /individual frac tanks, frac tank storage sent to Contractor Frac Tank Storage Area
 - b. 4/5/19 Collection into 4 isolated /individual frac tanks, frac tank storage sent to Contractor Frac Tank Storage Area.
 - c. 4/6/19 5 Frac Tanks available for collection.
 - d. 4/7/19 Collection into 5 isolated /individual frac tanks, frac tank storage sent to Contractor Frac Tank Storage Area
 - e. 4/8/19 being collected by Three (3) 130 BBL trucks placing into tankage in the facility, additional 10 frac tanks are being installed to be interconnected with a 2~4" pumps attached and placed at each end of 10 interconnected frac tanks
 - f. 4/9/19 being collected by Twelve (12) 130 BBL trucks placing into tankage in the facility,
 - g. 4/10/19 frac tank water being moved into plant
 - g. 4/11/12 Remediation and collection of all soils in the ditch in this section is to begin
 - h. 4/12/19 Upon the completion of soil removal, no further Stormwater runoff will be collected for storage and treatment.
- e) Crosby-Dayton Road County Ditch Section 2 (Berm 1 to Berm 2) –
- a. 4/4/19 3:00PM Collection is via a 4" Diesel pump into 10-interconnected frac tanks, as frac tanks are filled they are removed to Contractor Frac Tank Storage Area for temporary storage.
 - b. 4/5/19 9:00AM Collection is via a 4" Diesel pump into 10-interconnected frac tanks, as frac tanks are filled they are removed to Contractor Frac Tank Storage

Area for temporary storage. Frac tank contents being moved to onsite tankage to free up space for upcoming weekend rainfall.

- c. 4/6/19 Eleven -interconnected frac tanks available for collection
 - d. 4/7/19 7:00PM Collection is via a 4" Diesel pump into 10-interconnected frac tanks, as frac tanks are filled they are removed to Contractor Frac Tank Storage Area for temporary storage.
 - e. 4/8/19 5:00 10 frac are full and one (1) truck is removing water from the fracs
 - f. 4/9/19 4:00pm all 12 trucks are focused on removal of water from ditch
 - g. 4/10/19 no activity at this time
 - h. 4/11/12 Remediation and collection of all soils in the ditch in this section is to begin
 - i. 4/12/19 Upon the completion of soil removal, no further Stormwater runoff will be collected for storage and treatment.
- f) Crosby-Dayton Road County Ditch Section 3 (Berm 2 to Berm 3) –
- a. 4/4/19 3:00PM No storage currently
 - b. 4/5/19 No storage currently
 - c. 4/6/19 At the 8:50AM request of TCEQ (Anallely Salinas) standing water and soil samples have been collected for analysis prior to expected rain to establish background. Water on the West side of the Berm 2 is clear.
 - d. 4/7/19 Collected all rain fall and placed in Frac tanks
 - e. 4/8/19 Collected all rain fall and ditch is empty
 - f. 4/9/19 Collected all rain fall and ditch is empty
 - g. 4/10/19 no activity at this time
 - h. 4/11/12 Remediation and collection of all soils in the ditch in this section is to begin
 - i. 4/12/19 Upon the completion of soil removal, no further Stormwater runoff will be collected for storage and treatment.
- g) Crosby-Dayton Road County Ditch Section 4 (Berm 3 to Berm 4) –
- a. 4/4/19 3:00PM No storage currently
 - b. 4/5/19 No storage currently
 - c. 4/6/19 No storage currently
 - d. 4/7/19 First 15 minutes or ¼" rain water collected with regular 130BBL truck and discharged into frac tank, then all additional water was collected with clean 130BBL truck and pumped bypassed past Berm 3 to Berm 4
 - e. 4/8/19 no collection at this time
 - f. 4/9/19 no collection at this time
 - g. 4/10/19 no collection at this time
- h) Flare Detention Area –
- a. 4/4/19 3:00PM Water is being collected and sent to onsite tankage. Refer to list of onsite tanks available for storage

- b. 4/5/19 No storage currently.
 - c. 4/6/19 No storage currently
 - d. 4/7/19 Any collected stormwater storage will be processed through typical treatment methods in the WWTP
 - e. 4/8/19 No storage currently
 - f. 4/9/19 No storage currently
- i) West Stormwater Conveyance –
- a. 4/4/19 3:00PM No collection currently
 - b. 4/5/19 No collection currently. Water sampling to establish background occurred at approximately 3:00 PM.
 - o 4/6/19 Approval to open the 36" block valve to direct flow from Clara Wilson Rd through the Western Stormwater Conveyance, bypassing the Northern and Eastern Facility Perimeter Conveyances. This was approved by Harris County Craig Hill verbally at 8:50 4/6/19.
 - o 4/7/19 Runon flow diverted through conveyance.
- j) Plant –
- a. 4/4/19 3:00PM All stormwater and runoff is flowing to the WWTP and tankage
 - b. 4/5/19 As of 18:30 no rainfall today.
 - c. 4/6/19 As of 14:00 no rainfall today.
 - d. 4/7/19 All stormwater and runoff is flowing to the WWTP and tankage
 - e. 4/8/19 minimal rainfall today All stormwater and runoff is flowing to the WWTP and tankage
 - f. 4/9/19 no rainfall today.
- 5) Contingencies for 4/7/19
- In the case of heavy rain the following will occur:
- b) Ramsey Road East – Maintain segregation of inflow separately from the runoff on the West side of the road.
 - c) Ramsey Road West (Inclusive of Outfall 003) – Maintain berm and keep gate closed to prevent runoff. As needed mobilize a vac truck at the Outfall 003 to collect runoff from the site before it leaves the site and enters the conveyance.
 - d) Crosby-Dayton Road County Ditch Section 1 (Intersection to Berm 1) – Additional vac trucks and frac tanks can be mobilized as needed.
 - e) Crosby-Dayton Road County Ditch Section 2 (Berm 1 to Berm 2) - Additional vac trucks and frac tanks can be mobilized as needed.
 - f) Crosby-Dayton Road County Ditch Section 3 (Berm 2 to Berm 3) -
 - o Section 3 will be used as overflow for Sections 1 and 2. Additional vac trucks and frac tanks can be mobilized as needed.
 - o If Berm 2 fails or is compromised collection in Sections 3 and 4 will begin. Additional vac trucks and frac tanks can be mobilized as needed.
 - g) Crosby-Dayton Road County Ditch Section 4 (Berm 3 to Berm 4) -
 - o In the event of rain, the first **15 minutes** of runoff will be collected with regular vac trucks and discharged into frac tanks.

- For subsequent run-off, Clean Harbors will provide a clean truck to be dedicated to Section 4 and it will be pumped downstream to maintain freeboard in Section 4.
- If Berm 2 fails or is compromised, water will cease to be pumped and collection in Section 4 will begin. Additional vac trucks and frac tanks can be mobilized as needed.

6) Contingencies for 4/12/19 Post Soil Collection From Ditches

In the case of heavy rain the following will occur:

- h) Ramsey Road East – Maintain segregation of inflow separately from the runoff on the West side of the road.
 - i) Ramsey Road West (Inclusive of Outfall 003) – Maintain berm 5 and Outfall 003 Berm. Keep gate valve closed to prevent runoff from site. As needed mobilize a vac truck at the Outfall 003 to collect runoff from the site before it leaves the site and enters the conveyance.
 - j) Crosby-Dayton Road County Ditch Section 1 (Intersection to Berm 1) thru Section 4 (Berm 3 to Berm 4) – Removal of all berms upon completion of soil removal. Stormwater along this section will be allowed to flow freely in original conveyance configuration.
 - k) Flare Detention Area – All collected water from the detention area will be sent to the wastewater treatment plant and or tankage as needed. Maintain segregation of the flow through County water in the West Stormwater Conveyance from any water in collected in the Flare Detention Area. Vacuum Truck or pump will be designated to area to collect excess sheet flow and prevent flooding. Water collected will be stored in onsite tankage.
 - l) West Stormwater Conveyance – Open the outlet to allow the discharge of County inflow from Clara Wilson to convey freely along the west conveyance and bypass the industrial areas east of the conveyance. This will minimize the offsite flow along the front of the facility.
 - m) Plant – contain all stormwater and wastewater from impermeable areas of the facility in the wastewater treatment plant and adjacent tankage.
- 7) Stoppage – Water was be collected until impacted stormwater was no longer discharging from the site. After all impacted water was removed from the ditches soils were removed and remediated along the conveyance that was impacted. Impacted areas were tested to confirm they are cleaned to pre-event or background levels. EPA approved treatment chemicals will be utilized as required. All collected material will be properly disposed of. Upon soil removal from the external ditches Stormwater will be allowed to return to normal conveyance configuration.
- 8) Permissions – All temporary changes to County conveyance, or flow patterns will be discussed and approved prior to any physical changes or impacts occurring.
- a. On 4/4/19 at 4:00 the Stormwater Management Plan was reviewed with Tina Tran and Anallely Salinas from TCEQ Region 12.
 - b. On 4/6/19 at 8:50 Mark Kaulen, Vista Stewart, Eddie Lewis, From KMCO, LLC met with Craig Hill with Harris County Pollution Control Services, Nicholas McDonald representing EPA, and Anallely Salinas with TCEQ Air Section Region 12. The current plan was verbally approved to include the following activities:

- In the event of copious rainfall - Open the 36" block valve to direct flow from Clara Wilson Rd through the Western Stormwater Conveyance, bypassing the Northern and Eastern Facility Perimeter Conveyances.
 - Crosby-Dayton Road County Ditch Section 3 and Section 4 –
 - In the event of rain, the first flush (1/4 inch or 15 minutes of runoff) will be collected with vac trucks.
 - Subsequent runoff will be pumped downstream to maintain freeboard in both Section 3 and Section 4.
 - If Berm 2 fails or is compromised, water will cease to be pumped and collection in Section 3 will begin.
 - Plan actions were subsequently modified to incorporate elements that generate more conservative results.
- c. On 4/7/19 Mark Kaulen received approval from TCEQ, HCPC, and EPA to redirect water flowing from East Ramsey Road over and back around through the plant bypass using 2 pumps, one with 3" and one with 4" hoses ran down Clara Wilson Road and directed through KMCO. Harris County brought in dirt and diked up the west ditch as barriers were built on East Ramsey side to keep water flow from coming from the north.
- d. ON 4/10/19 at 12:15 Gary Moore approved that the rain fall on 4/7/19 was sufficient to be considered flush water. This enables us to begin remediation of the ditches upon completion of runoff water collection. This will suffice the requests from TCEQ to flush the culverts after the firefighting foam was collected.

ATTACHMENTS - SITE MAPS

FACILITY OVERVIEW MAPS



COUNTY DITCH DAM MAP



INTERNAL DAM MAP

